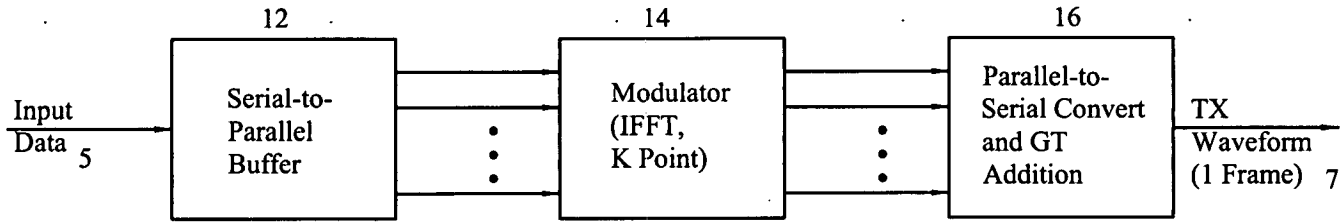

FIGURE 1

PRIOR ART

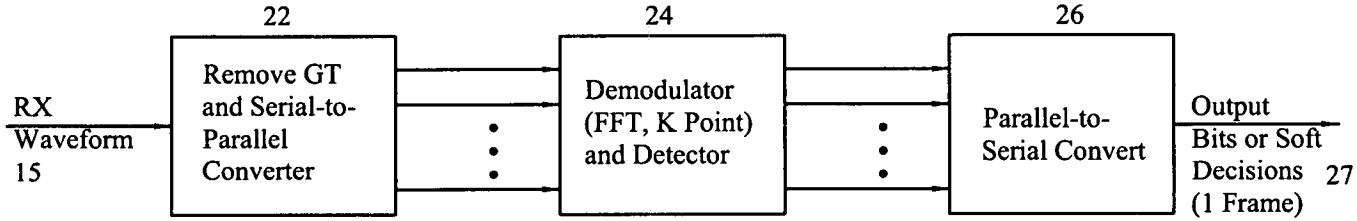

FIGURE 2

PRIOR ART

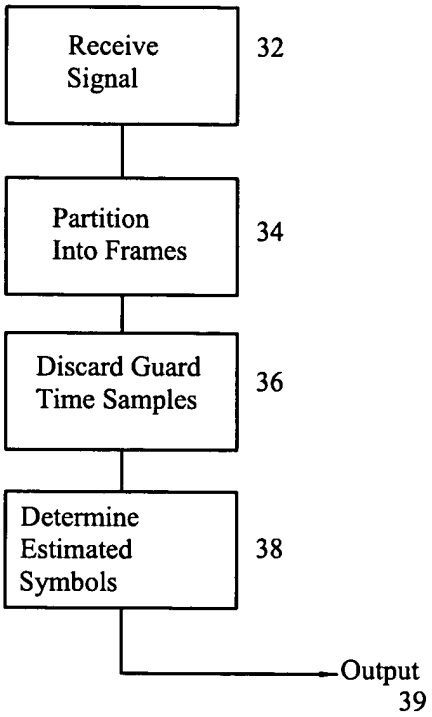

FIGURE 3

PRIOR ART

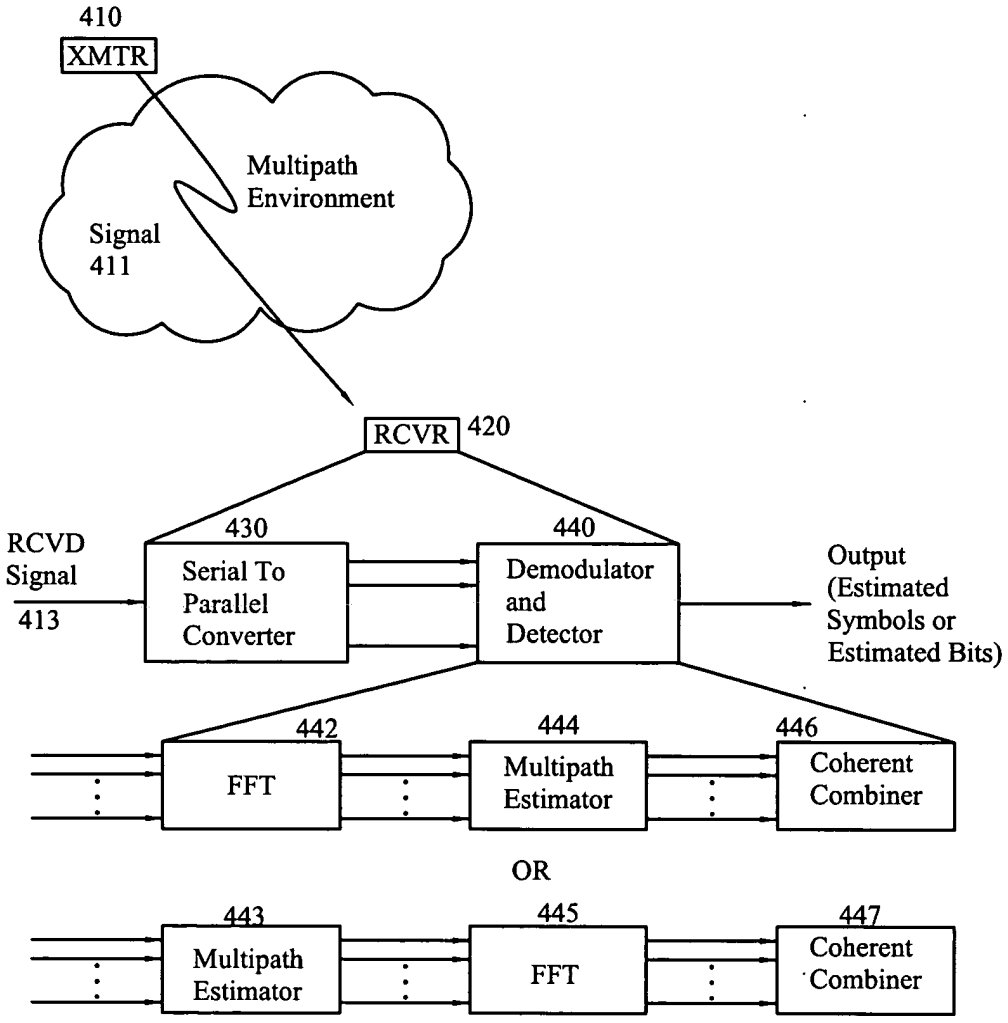
410
XMTR
Multipath
Environment
Signal
411
RCVR
420
RCVD
Signal
413
430
Serial To
Parallel
Converter
440
Demodulator
and
Detector
Output
(Estimated
Symbols or
Estimated Bits)
442
FFT
444
Multipath
Estimator
446
Coherent
Combiner
OR
443
Multipath
Estimator
445
FFT
447
Coherent
Combiner

FIGURE 4

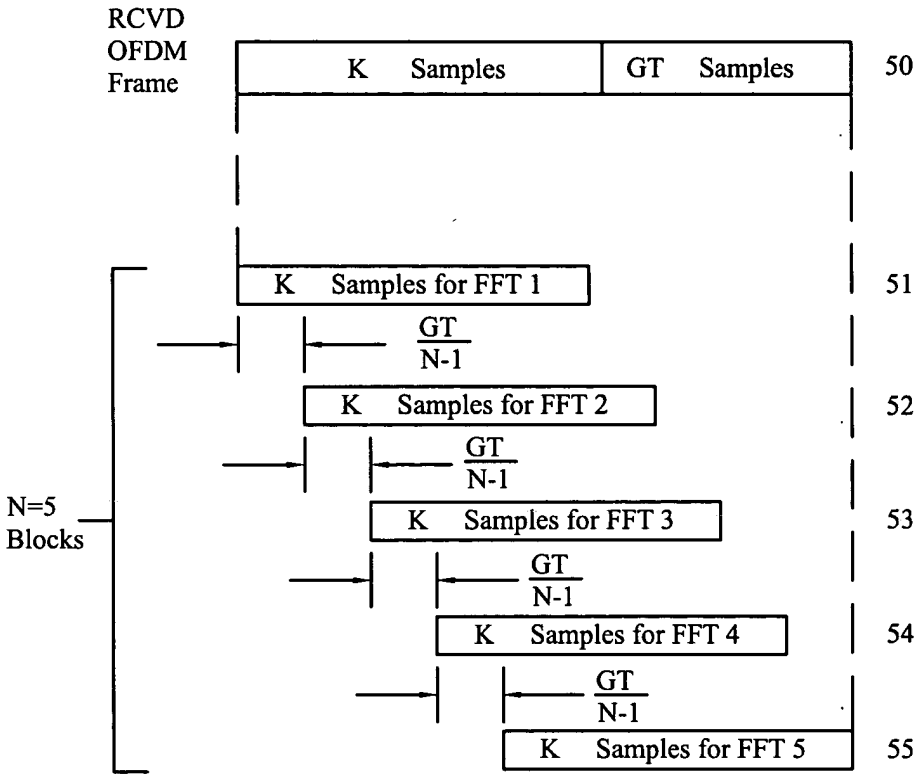
RCVD
OFDM
Frame
K Samples
GT Samples
50
K Samples for FFT 1
51
GT
N-1
K Samples for FFT 2
52
GT
N-1
N=5
Blocks
K Samples for FFT 3
53
GT
N-1
K Samples for FFT 4
54
GT
N-1
K Samples for FFT 5
55

FIGURE 5

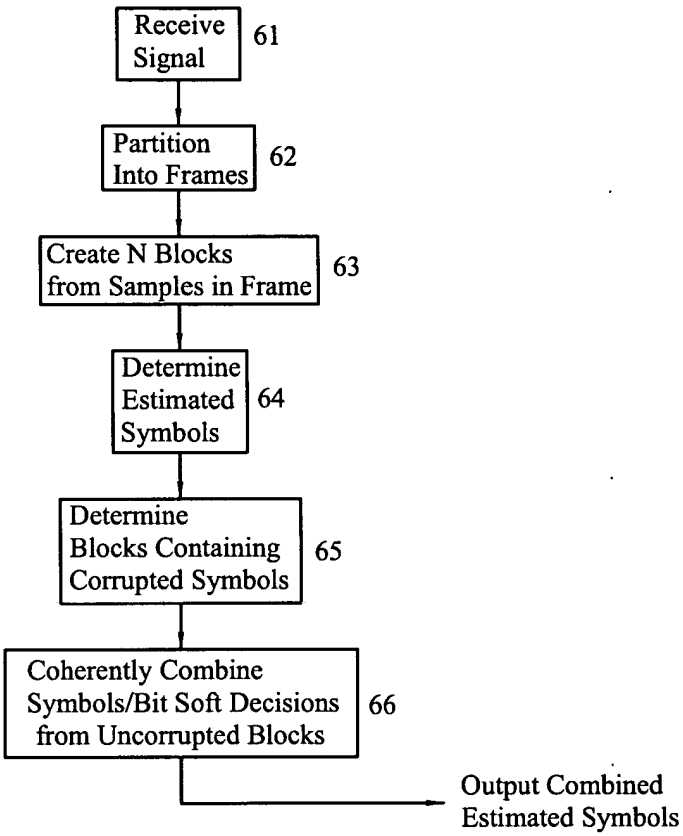
Receive Signal
61
Partition Into Frames
62
Create N Blocks from Samples in Frame
63
Determine Estimated Symbols
64
Determine Blocks Containing Corrupted Symbols
65
Coherently Combine Symbols/Bit Soft Decisions from Uncorrupted Blocks
66
Output Combined Estimated Symbols

FIGURE 6

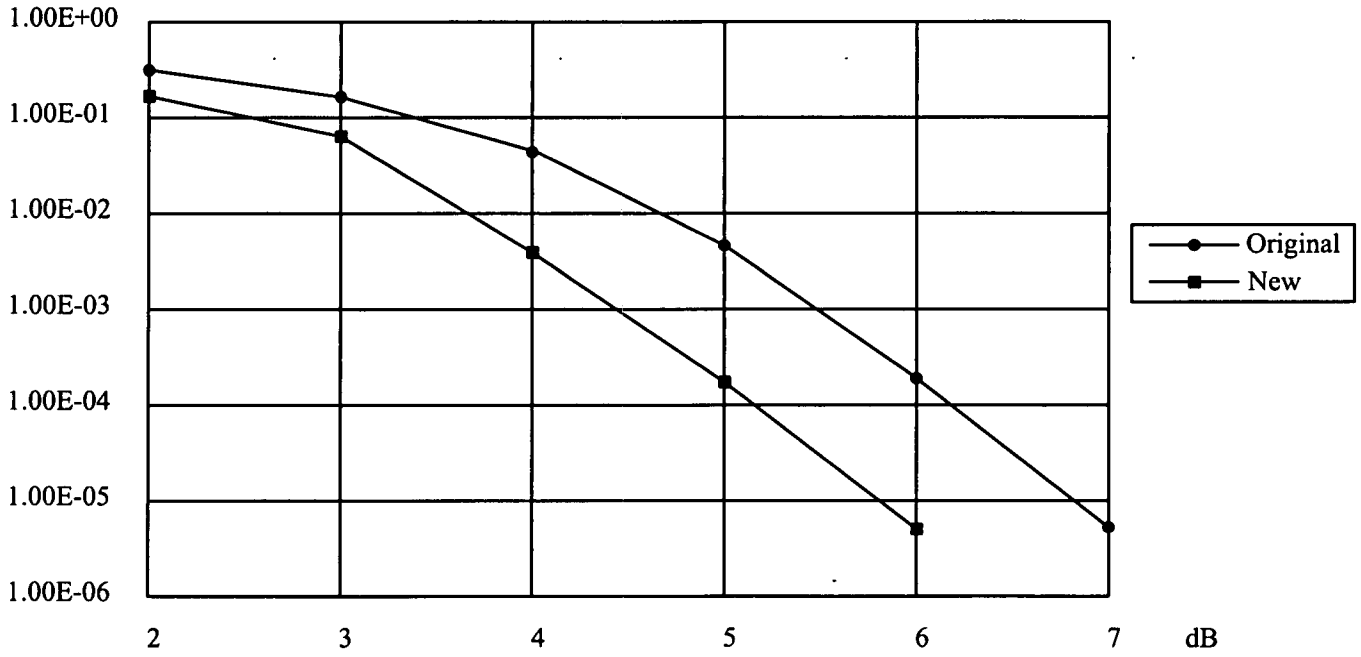
1.00E+00
1.00E-01
1.00E-02
1.00E-03
1.00E-04
1.00E-05
1.00E-06
2
3
4
5
6
7
dB
Original
New

FIGURE 7

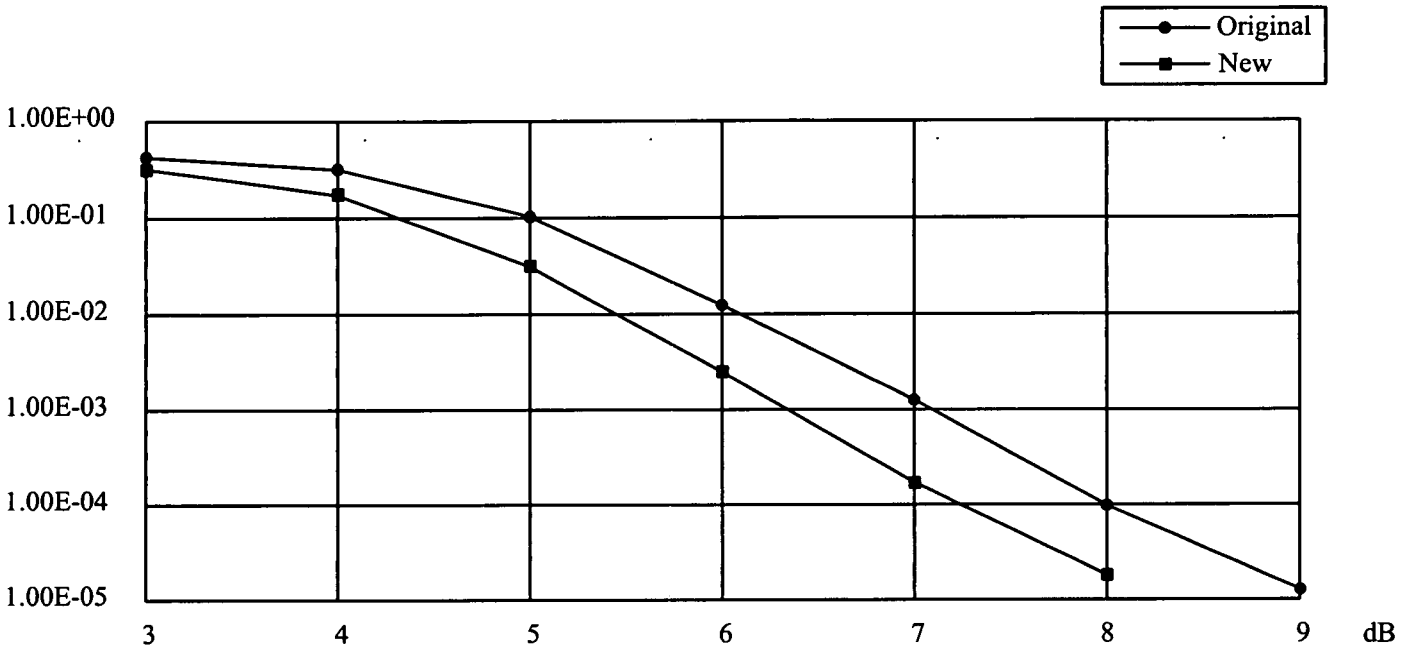
Original
New
1.00E+00
1.00E-01
1.00E-02
1.00E-03
1.00E-04
1.00E-05
3
4
5
6
7
8
9
dB

FIGURE 8